

10052966

=> d his

(FILE 'HOME' ENTERED AT 17:30:04 ON 19 NOV 2007)

FILE 'REGISTRY' ENTERED AT 17:30:42 ON 19 NOV 2007
E 35246-54-9/RN

L1 1 E3

FILE 'REGISTRY' ENTERED AT 17:31:08 ON 19 NOV 2007

SET TERMSET E#

DEL SEL Y

SEL L1 1 RN

L2 1 S E1/RN

SET TERMSET LOGIN

FILE 'CAPLUS' ENTERED AT 17:31:12 ON 19 NOV 2007

L3 3 S L2

L4 0 S L3 AND (HAIR DYE)

L5 0 S L3 (P) COMPOUND

L6 0 S L3 (P) USE

FILE 'REGISTRY' ENTERED AT 17:32:55 ON 19 NOV 2007

SET TERMSET E#

DEL SEL Y

SEL L1 1 RN

L7 1 S E1/RN

SET TERMSET LOGIN

FILE 'CAOLD' ENTERED AT 17:32:59 ON 19 NOV 2007

L8 2 S L7

FILE 'REGISTRY' ENTERED AT 17:33:43 ON 19 NOV 2007

SET TERMSET E#

DEL SEL Y

SEL L1 1 RN

L9 1 S E1/RN

SET TERMSET LOGIN

FILE 'IFIPAT' ENTERED AT 17:33:48 ON 19 NOV 2007

L10 1 S L9

FILE 'REGISTRY' ENTERED AT 17:34:15 ON 19 NOV 2007

L11 1 S 35246-61-8/RN

SET NOTICE 1 DISPLAY

SET NOTICE LOGIN DISPLAY

FILE 'CAPLUS' ENTERED AT 17:34:59 ON 19 NOV 2007

L12 0 S 1,4-BENZENEDIOL (2A) PHENYLAMINOMETHYL

L13 0 S 1,4-BENZENEDIOL (2A) PHENYL (2A)AMINOMETHYL

L14 0 S RESORCINOL(2A) PHENYL (2A)AMINOMETHYL

L15 8 S RESORCINOL (2A) AMINOMETHYL

=>

lc

=> fil reg; d stat que l12; fil capl; d que nos l17; d que nos l13
 FILE 'REGISTRY' ENTERED AT 12:33:21 ON 19 NOV 2007
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Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 18 NOV 2007 HIGHEST RN 954747-20-7
 DICTIONARY FILE UPDATES: 18 NOV 2007 HIGHEST RN 954747-20-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

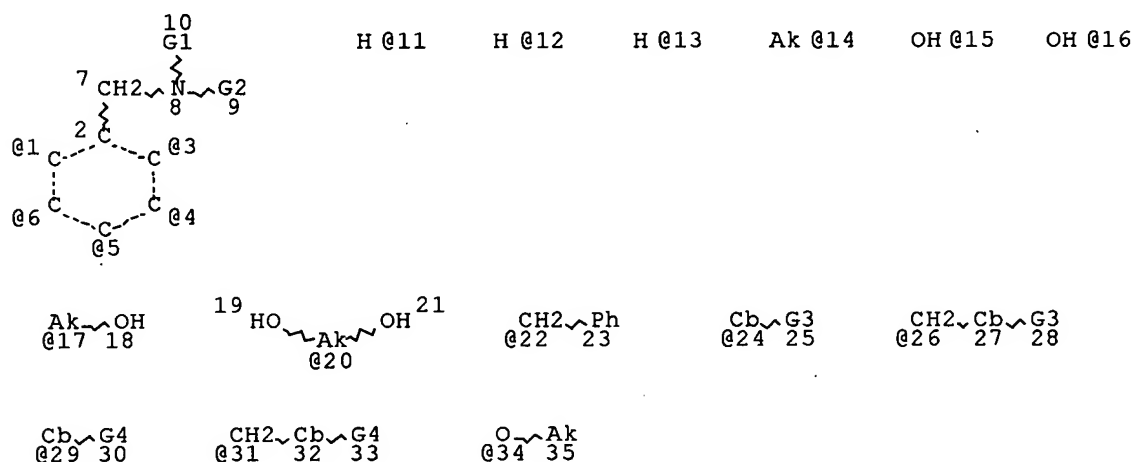
Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
 predicted properties as well as tags indicating availability of
 experimental property data in the original document. For information
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

L1

STR



VAR G1=H/14/17/20/PH/22/24/26

VAR G2=17/20/PH/22/29/31

VAR G3=OH/NH2/34

VAR G4=OH/NH2

VPA 11-3/4/5/6/1 U

VPA 12-3/4/5/6/1 U

VPA 13-3/4/5/6/1 U

VPA 15-3/4/5/6/1 U

VPA 16-3/4/5/6/1 U

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 14

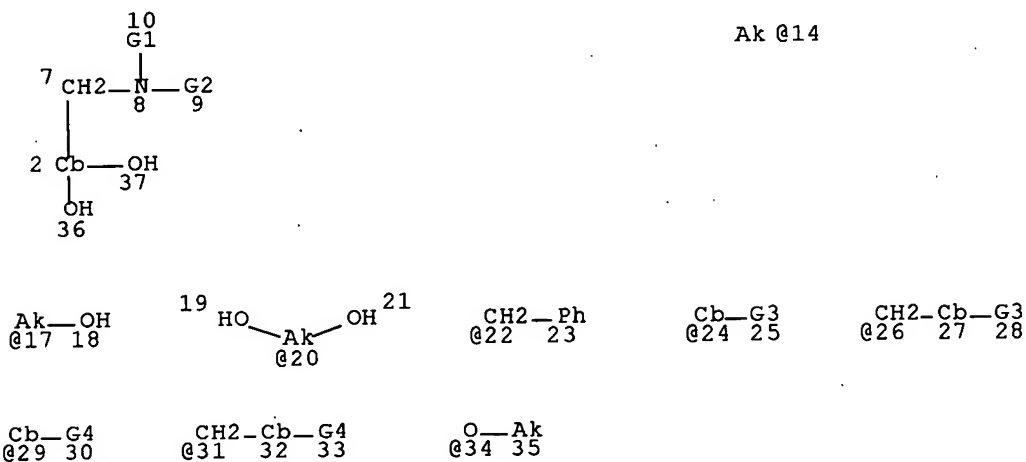
CONNECT IS E2 RC AT 17

CONNECT IS E3 RC AT 20
 CONNECT IS E2 RC AT 24
 CONNECT IS E2 RC AT 27
 CONNECT IS E2 RC AT 29
 CONNECT IS E2 RC AT 32
 CONNECT IS E1 RC AT 35
 DEFAULT MLEVEL IS ATOM
 MLEVEL IS CLASS AT 14 17 20 23 24 27 29 32 35
 GGCAT IS MCY LOC UNS AT 24
 GGCAT IS MCY LOC UNS AT 27
 GGCAT IS MCY LOC UNS AT 29
 GGCAT IS MCY LOC UNS AT 32
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

L5 SCR 1235 AND 1701
 L8 292 SEA FILE=REGISTRY SSS FUL L5 AND L1
 L9 STR



VAR G1=H/14/17/20/PH/22/24/26
 VAR G2=17/20/PH/22/29/31
 VAR G3=OH/NH2/34
 VAR G4=OH/NH2

NODE ATTRIBUTES:

CONNECT IS E3 RC AT 2
 CONNECT IS E1 RC AT 14
 CONNECT IS E2 RC AT 17
 CONNECT IS E3 RC AT 20
 CONNECT IS E2 RC AT 24
 CONNECT IS E2 RC AT 27
 CONNECT IS E2 RC AT 29
 CONNECT IS E2 RC AT 32
 CONNECT IS E1 RC AT 35
 DEFAULT MLEVEL IS ATOM
 MLEVEL IS CLASS AT 14 17 20 23 24 27 29 32 35
 GGCAT IS MCY LOC UNS AT 2
 GGCAT IS MCY LOC UNS AT 24
 GGCAT IS MCY LOC UNS AT 27

GGCAT IS MCY LOC UNS AT 29
 GGCAT IS MCY LOC UNS AT 32
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E6 C AT 2

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
 L12 53 SEA FILE=REGISTRY SUB=L8 SSS FUL L9

100.0% PROCESSED 292 ITERATIONS 53 ANSWERS
 SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 12:33:22 ON 19 NOV 2007
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FILE COVERS 1907 - 19 Nov 2007 VOL 147 ISS 22
 FILE LAST UPDATED: 18 Nov 2007 (20071118/ED)

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<http://www.cas.org/infopolicy.html>
 'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L1 STR
 L5 SCR 1235 AND 1701
 L8 292 SEA FILE=REGISTRY SSS FUL L5 AND L1
 L9 STR
 L12 53 SEA FILE=REGISTRY SUB=L8 SSS FUL L9
 L13 20 SEA FILE=CAPLUS ABB=ON L12
 L14 1 SEA FILE=CAPLUS ABB=ON US2002-52966/AP
 L15 1243 SEA FILE=CAPLUS ABB=ON LIM M?/AU
 L16 5785 SEA FILE=CAPLUS ABB=ON PAN Y?/AU
 L17 0 SEA FILE=CAPLUS ABB=ON (L14 OR L15 OR L16) AND L13 = INVENTORS

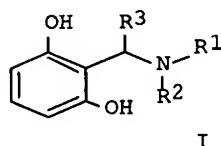
L1 STR
 L5 SCR 1235 AND 1701
 L8 292 SEA FILE=REGISTRY SSS FUL L5 AND L1

L9 STR
 L12 53 SEA FILE=REGISTRY SUB=L8 SSS FUL L9
 L13 20 SEA FILE=CAPLUS ABB=ON L12

=> d ibib abs hitstr l13 1-20; fil hom

L13 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:238180 CAPLUS Full-text
 DOCUMENT NUMBER: 138:271380
 TITLE: Preparation of 2-substituted resorcinol derivatives
 containing coloring agent as well as new resorcinol
 derivatives
 PATENT ASSIGNEE(S): Wella AG, Germany
 SOURCE: Ger. Gebrauchsmusterschrift, 48 pp.
 CODEN: GGXXFR
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 20217957	U1	20030327	DE 2002-20217957	20021120
PRIORITY APPLN. INFO.:			DE 2002-20217957	20021120
OTHER SOURCE(S):	MARPAT	138:271380		
GI				



AB A means of the coloring keratin fibers based on a developer/generator substance coupling agent combination, is characterized by the fact that it contains at least one resorcinol derivative I [R1, R2 = H, C1-6-alkyl, C2-6-alkenyl, acetyl, C1-4-alkoxy, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C1-4-alkoxy-C1-4-alkyl, C1-4-hydroxyalkoxy-C1-4-alkyl, C1-4-aminoalkyl, C1-4-(dimethylamino)alkyl, C1-4-(acetylamino)alkyl, C1-4-[(tert-butoxycarbonyl)amino]alkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridyl Me, furfuryl, tetrahydrofurfuryl, methyltetrahydrofurfuryl, (un)substituted pyridyl, Ph, pyrazolyl, piperidinyl, morpholinyl, piperazinyl, pyrrolidinyl; R3 = H, C1-6-alkyl] or its physiol. compatible water-soluble salts. Thus, I [R1 = CH2CH2OMe, R2 = R3 = H] was prepared from resorcinol, via O-alkylation with ClCH2CH2OMe, Vilsmeier formylation, O-deprotection and reductive amination with MeOCH2CH2NH2. A hair dye was prepared containing I [R1 = CH2CH2OMe, R2 = R3 = H] and 2,5-diaminotoluene sulfate (developing agent) giving a medium blond color.

IT 503046-58-OP 503046-59-1P 503046-61-5P
 503046-62-6P

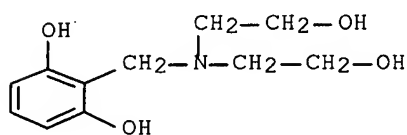
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation and color of dyes containing; preparation of 2-substituted

resorcinol

derivs. containing coloring agent as well as new resorcinol derivs.)

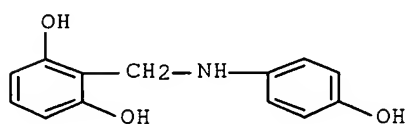
RN 503046-58-0 CAPLUS

CN 1,3-Benzenediol, 2-[[bis(2-hydroxyethyl)amino]methyl]- (CA INDEX NAME)

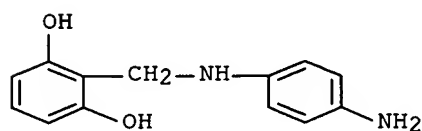


RN 503046-59-1 CAPLUS

CN 1,3-Benzenediol, 2-[[[(4-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



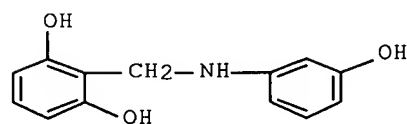
RN 503046-61-5 CAPLUS

CN 1,3-Benzenediol, 2-[[[(4-aminophenyl)amino]methyl]-, dihydrochloride (9CI)
(CA INDEX NAME)

● 2 HCl

RN 503046-62-6 CAPLUS

CN 1,3-Benzenediol, 2-[[[(3-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



IT 503047-03-8P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation); USES (Uses)

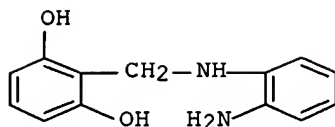
(preparation of 2-substituted resorcinol derivs. containing coloring agent

as

well as new resorcinol derivs.)

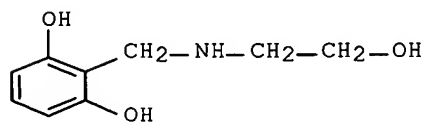
RN 503047-03-8 CAPLUS

CN 1,3-Benzenediol, 2-[[[(2-aminophenyl)amino]methyl]-, dihydrochloride (9CI)
(CA INDEX NAME)

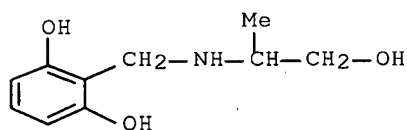


●2 HCl

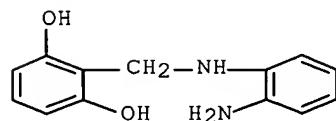
IT 503046-79-5P, 2-[(2,6-Dihydroxybenzyl)amino]ethanol
 503046-84-2P, 2-(2,6-Dihydroxybenzylamino)propan-1-ol
 503046-86-4P 503046-87-5P 503046-88-6P
 503046-91-1P, 1,3-Dihydroxy-2-[(phenylamino)methyl]benzene
 503046-93-3P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of 2-substituted resorcinol derivs. containing coloring agent as well as new resorcinol derivs.)
 RN 503046-79-5 CAPLUS
 CN 1,3-Benzenediol, 2-[[2-(2-hydroxyethyl)amino]methyl]- (CA INDEX NAME)



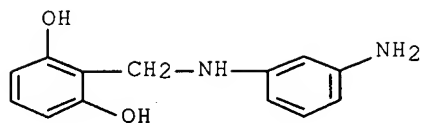
RN 503046-84-2 CAPLUS
 CN 1,3-Benzenediol, 2-[[2-(2-hydroxy-1-methylethyl)amino]methyl]- (CA INDEX NAME)



RN 503046-86-4 CAPLUS
 CN 1,3-Benzenediol, 2-[[2-(2-aminophenyl)amino]methyl]- (CA INDEX NAME)

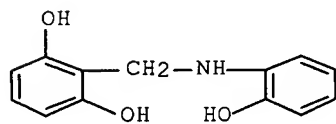


RN 503046-87-5 CAPLUS
 CN 1,3-Benzenediol, 2-[[2-(3-aminophenyl)amino]methyl]- (CA INDEX NAME)



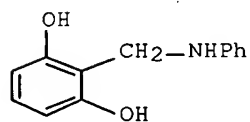
RN 503046-88-6 CAPLUS

CN 1,3-Benzenediol, 2-[[(2-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



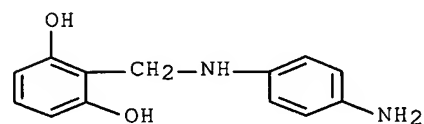
RN 503046-91-1 CAPLUS

CN 1,3-Benzenediol, 2-[(phenylamino)methyl]- (CA INDEX NAME)



RN 503046-93-3 CAPLUS

CN 1,3-Benzenediol, 2-[[(4-aminophenyl)amino]methyl]- (CA INDEX NAME)



L13 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:171836 CAPLUS Full-text

DOCUMENT NUMBER: 136:236659

TITLE: Synthesis of N-benzyl-p-phenylenediamine derivatives and their application in oxidative hair dyes as developers

INVENTOR(S): Chassot, Laurent; Braun, Hans-juergen

PATENT ASSIGNEE(S): Wella Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

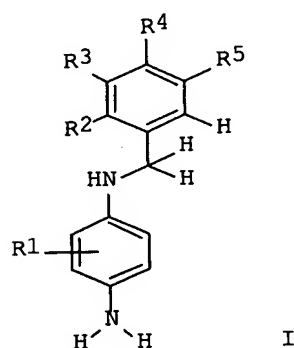
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002018318 A1 20020307 WO 2001-EP3121 20010319
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2383855 A1 20020307 CA 2001-2383855 20010319
AU 200139307 A 20020313 AU 2001-39307 20010319
BR 2001007154 A 20020618 BR 2001-7154 20010319
EP 1226107 A1 20020731 EP 2001-913893 20010319
EP 1226107 B1 20051005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004507517 T 20040311 JP 2002-523436 20010319
EP 1493731 A1 20050105 EP 2004-22498 20010319
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI, CY, TR
AT 305916 T 20051015 AT 2001-913893 20010319
ES 2249420 T3 20060401 ES 2001-1913893 20010319
US 2002166181 A1 20021114 US 2002-49667 20020101
US ~~6689174~~ B2 -20040210
MX 2002PA04234 A 20021113 MX 2002-PA4234 20020426
DE 2000-10042787 A 20000831
EP 2001-913893 A3 20010319
WO 2001-EP3121 W 20010319

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 136:236659
GI



AB The invention relates to coloring agents for keratin fibers containing N-benzyl-p-phenylenediamine derivs. of general formula (I) and their physiol. compatible water soluble salts, in addition to novel N-benzyl-p-phenylenediamine derivs. Thus a hair dye contained 1.25 mmol N-((3-hydroxyphenyl)methyl)-1,4-diamino-benzene hydrochloride as developer and 1.25 mmol 1,3-dihydroxybenzene as coupler. Further ingredients were (g): potassium oleate (8% aq. solution) 1.0; ammonia (22% aqueous solution) 1.0; ethanol 1.0; ascorbic acid 0.3; water to 100.

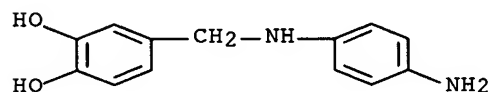
IT 402825-63-2P 402825-64-3P 402825-71-2P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of N-heteroarylmethyl-p-phenyldiamine derivs. and application in oxidative hair dyes as developers)

RN 402825-63-2 CAPLUS

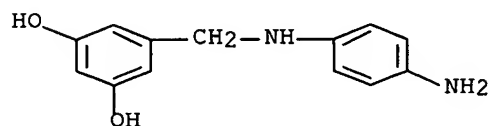
CN 1,2-Benzenediol, 4-[[(4-aminophenyl)amino]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 402825-64-3 CAPLUS

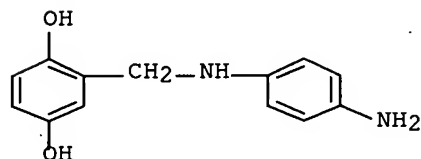
CN 1,3-Benzenediol, 5-[[(4-aminophenyl)amino]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 402825-71-2 CAPLUS

CN 1,4-Benzenediol, 2-[[(4-aminophenyl)amino]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT:

9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:152777 CAPLUS Full-text

DOCUMENT NUMBER: 136:305912

TITLE: Towards versatile metal associating substrates for the determination of peroxidatic activity/hydrogen peroxide by chemical designing of Schiff base

derivatives

AUTHOR(S): Krieg, Reimar; Oehring, Hartmut; Halbhuber, Karl-Juergen

CORPORATE SOURCE: Inst. Anatomy, Friedrich Schiller Univ. Jena, Jena, D-07743, Germany

SOURCE: Cellular and Molecular Biology (Paris, France, Online) (2001), 47, OL209-OL241
CODEN: CMBPBN; ISSN: 1165-158X
URL: <http://www.cmb-ass.com/Vol/Vol47/online28.htm>

PUBLISHER: CMB Association

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

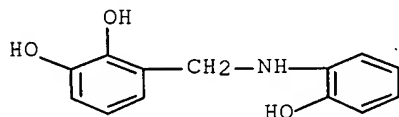
OTHER SOURCE(S): CASREACT 136:305912

AB Novel chromogenic N-arylmethyl-aniline-substrates of the general formula R-NH-CH₂CH₆H₅-n-X_n (X = OH, NHR) for the localization of peroxidic activity/hydrogen peroxide were synthesized in two steps from starting amines and aromatic aldehydes. When using 1,2-dinucleophiles (e.g. diaminobenzidine) as starting material there may be limitations resulting from dominant alternative reaction courses (amino-imines vs. bis-imines) or tautomerism (amino-imines vs. benzimidazolines). This has been investigated in a model study on 1,2-phenylenediamine. All substrates were evaluated for application in histochem., electrophoresis, colorimetry and electron microscopy. Thus, 1/endogenous peroxidatic activity in native cryotome sections, of Wistar rats was obtained. One selected reagent was used for immuno-histochem. demonstration of vimentin and applied for laser microscopy at 543 nm as well. 2/Electron-blotted dilution series of horseradish peroxidase were stained and reagents ranked according to their sensitivity. 3/In test tube expts. precipitation behavior, color and solubility of ppts. was investigated. 4/The chromogens are capable of forming electron opaque final reaction products by way of increased osmiophilicity of the specific reaction product or/and by complexation of electron dense metals as demonstrated by electron microscopical investigations. As a result, two novel reagents derived from 1,2-phenylenediamine and 2-aminophenol are recommended especially for electron microscopy. The discrimination between internum and externum of specific granules after osmium tetroxide treatment is resolved clearly as compared with results obtained with the standard Kamovsky protocol.

IT 245062-51-5P 409334-60-7P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation and characterization of metal associating substrates for determination of peroxidase/hydrogen peroxide by chemical designing of Schiff base derivs.)

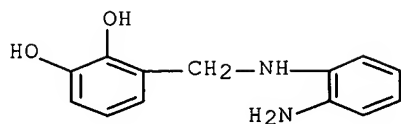
RN 245062-51-5 CAPLUS

CN 1,2-Benzenediol, 3-[[[(2-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



RN 409334-60-7 CAPLUS

CN 1,2-Benzenediol, 3-[[[(2-aminophenyl)amino]methyl]- (CA INDEX NAME)



REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:729678 CAPLUS Full-text

DOCUMENT NUMBER: 135:288587

TITLE: Aminomethyl-m-dihydroxybenzene derivatives and coloring agents for keratin fibers containing these compounds

PATENT ASSIGNEE(S): Wella AG, Germany

SOURCE: Ger. Gebrauchsmusterschrift, 35 pp.

CODEN: GGXXFR

DOCUMENT TYPE: Patent

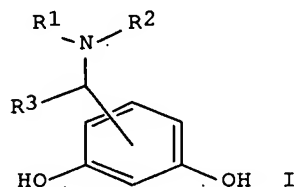
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

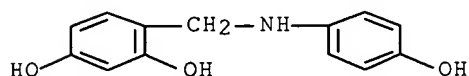
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 20110356	U1	20011004	DE 2001-20110356	20010622
PRIORITY APPLN. INFO.:			DE 2001-20110356	20010622
OTHER SOURCE(S):		MARPAT 135:288587		

GI

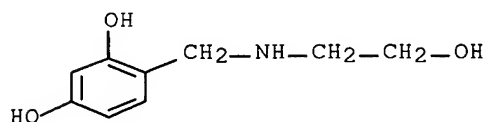


AB Aminomethyl-m-dihydroxybenzene derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, C3-6 alkenyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, thienylmethyl, substituted pyridyl, (un)substituted phenylmethyl or -Et, or R1 and R2 together with the N atom form a ring, including (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-4 alkyl; preferably, R3 = H and/or one of R1 or R2 = C2-4 hydroxyalkyl, 3,4-methylenedioxyphenyl, Ph] or their physiol. compatible, water-soluble salts, useful as couplers in oxidative hair dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier, are claimed. In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to hair; e.g., a preparation containing 0.20 g 1,3-dihydroxy-(4-phenylaminomethyl)benzene (preparation given) 0.15 g 1,4-benzenediamine, 0.30 g 3-methyl-4-aminophenol and 0.30 1-naphthol (formulation given) afforded red-brown hair.

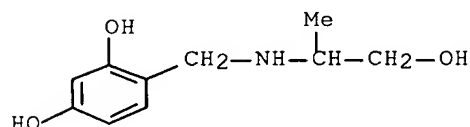
IT 150268-63-6 364365-63-9 364365-76-4
 364365-78-6 364365-80-0 364365-82-2
 364365-83-3 364365-87-7 364365-99-1
 364366-01-8 364366-02-9 364366-04-1
 364366-05-2 364366-06-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (coupling substance component in oxidative hair dye based on
 developer-coupling substance combination containing dihydroxybenzene
 derivs.)
 RN 150268-63-6 CAPLUS
 CN 1,3-Benzenediol, 4-[[(4-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



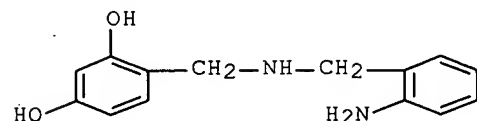
RN 364365-63-9 CAPLUS
 CN 1,3-Benzenediol, 4-[[(2-hydroxyethyl)amino]methyl]- (CA INDEX NAME)



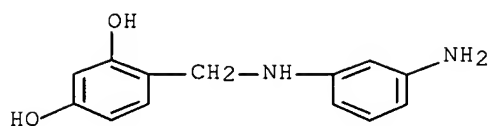
RN 364365-76-4 CAPLUS
 CN 1,3-Benzenediol, 4-[[(2-hydroxy-1-methylethyl)amino]methyl]- (CA INDEX NAME)



RN 364365-78-6 CAPLUS
 CN 1,3-Benzenediol, 4-[[[(2-aminophenyl)methyl]amino]methyl]- (CA INDEX NAME)

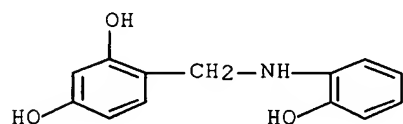


RN 364365-80-0 CAPLUS
 CN 1,3-Benzenediol, 4-[[(3-aminophenyl)amino]methyl]- (CA INDEX NAME)



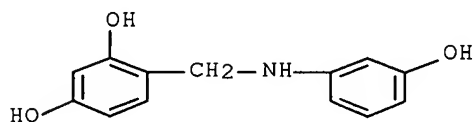
RN 364365-82-2 CAPLUS

CN 1,3-Benzenediol, 4-[[(2-hydroxyphenyl) amino]methyl]- (CA INDEX NAME)



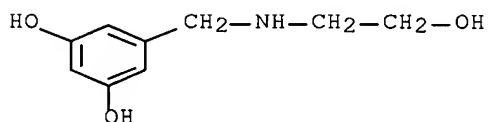
RN 364365-83-3 CAPLUS

CN 1,3-Benzenediol, 4-[[(3-hydroxyphenyl) amino]methyl]- (CA INDEX NAME)



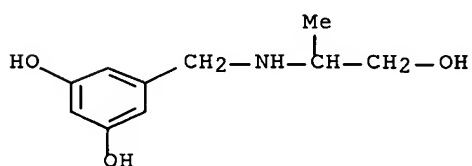
RN 364365-87-7 CAPLUS

CN 1,3-Benzenediol, 5-[[(2-hydroxyethyl) amino]methyl]- (CA INDEX NAME)



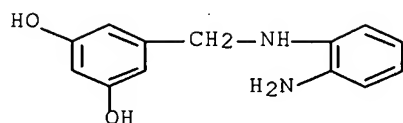
RN 364365-99-1 CAPLUS

CN 1,3-Benzenediol, 5-[[(2-hydroxy-1-methylethyl) amino]methyl]- (CA INDEX NAME)



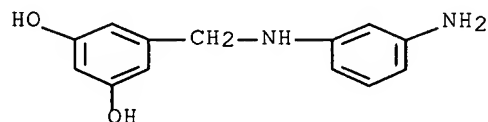
RN 364366-01-8 CAPLUS

CN 1,3-Benzenediol, 5-[[(2-aminophenyl) amino]methyl]- (CA INDEX NAME)



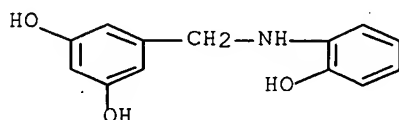
RN 364366-02-9 CAPLUS

CN 1,3-Benzenediol, 5-[[3-aminophenyl]amino]methyl]- (CA INDEX NAME)



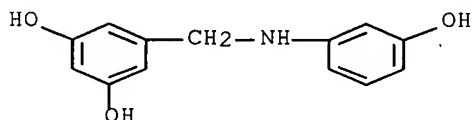
RN 364366-04-1 CAPLUS

CN 1,3-Benzenediol, 5-[[2-hydroxyphenyl]amino]methyl]- (CA INDEX NAME)



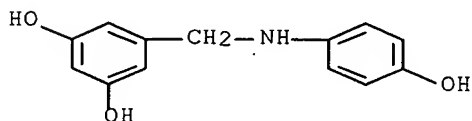
RN 364366-05-2 CAPLUS

CN 1,3-Benzenediol, 5-[[3-hydroxyphenyl]amino]methyl]- (CA INDEX NAME)



RN 364366-06-3 CAPLUS

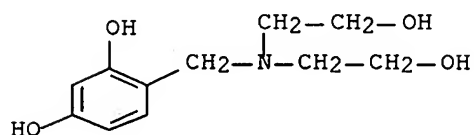
CN 1,3-Benzenediol, 5-[[4-hydroxyphenyl]amino]methyl]- (CA INDEX NAME)



IT 364366-11-0P 364366-14-3P 364366-16-5P
364366-23-4P

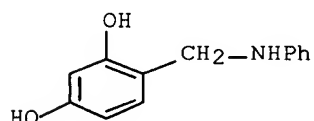
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as coupling substance component in oxidative hair dye based on developer-coupling substance combination containing dihydroxybenzene

derivs.)
 RN 364366-11-0 CAPLUS
 CN 1,3-Benzenediol, 4-[[bis(2-hydroxyethyl)amino]methyl]-, hydrochloride
 (9CI) (CA INDEX NAME)

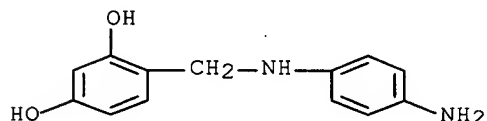


● HCl

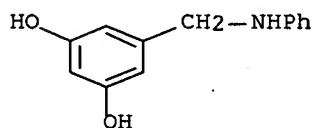
RN 364366-14-3 CAPLUS
 CN 1,3-Benzenediol, 4-[(phenylamino)methyl]- (CA INDEX NAME)



RN 364366-16-5 CAPLUS
 CN 1,3-Benzenediol, 4-[[4-aminophenyl)amino]methyl]- (CA INDEX NAME)



RN 364366-23-4 CAPLUS
 CN 1,3-Benzenediol, 5-[(phenylamino)methyl]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L13 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:635578 CAPLUS Full-text
 DOCUMENT NUMBER: 131:254664
 TITLE: Synthesis and application of chromogens used for the

determination of hydrogen peroxide, peroxidases, oxidases in hydrogen peroxide forming systems
 INVENTOR(S): Krieg, Reimar; Halbhuber, Karl-Juergen
 PATENT ASSIGNEE(S): Friedrich-Schiller-Universitaet Jena, Germany; Jenlab GmbH
 SOURCE: Ger. Offen., 36 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19813979	A1	19990930	DE 1998-19813979	19980328
DE 19813979	C2	20030403		

PRIORITY APPLN. INFO.: DE 1998-19813979 19980328

AB The invention concerns the synthesis of novel chromogens/fluorogens that are used for the quantitation of hydrogen peroxide, peroxidase and oxidase in hydrogen peroxide forming systems, e.g. enzyme immunoassays and immunohistochem. staining. Substances of the general formula {[Z-NHRal-CHR2R3]a+}nAa(a+n)- are prepared and applied; Ar = aryl, heteroaryl, mono or higher substituted chelate-forming cyclic or aliphatic ligand; a = 0,1; n = 1,2,...; R2,R3 = benzene, pyridine, pyrrole, furan, thiofuran derivs., metallocene; A = anion, e.g. halogen, acetate, trifluoroacetate, or BF4. Synthesis of the color forming substances is disclosed. Reagents for the peroxide assay contain the chromophores, buffers, salts of transition metals, addnl. electron-rich systems, that are electron donors or radical transfer mediators.

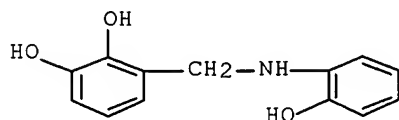
IT 245062-51-5P 245062-52-6P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(synthesis and application of chromogens used for determination of hydrogen peroxide, peroxidases, oxidases in hydrogen peroxide forming systems)

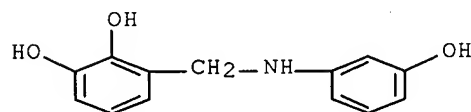
RN 245062-51-5 CAPLUS

CN 1,2-Benzenediol, 3-[[(2-hydroxyphenyl) amino] methyl]- (CA INDEX NAME)



RN 245062-52-6 CAPLUS

CN 1,2-Benzenediol, 3-[[(3-hydroxyphenyl) amino] methyl]- (CA INDEX NAME)



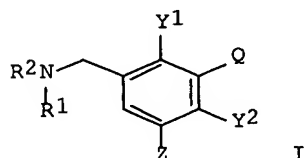
REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:96199 CAPLUS Full-text
 DOCUMENT NUMBER: 130:155251
 TITLE: Alkyl(hydroxybenzyl)amines, their preparation and use
 as anticorrosion agents for metal surfaces
 INVENTOR(S): Schapira, Joseph; Cheminaud, Jean-Claude; Droniou,
 Patrick; Gasse, Jean-Jacques; Guimon, Michele; Bonnin,
 Joel; Gagnepain, Stephane
 PATENT ASSIGNEE(S): CFPI Industries, Fr.
 SOURCE: PCT Int. Appl., 30 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905089	A1	19990204	WO 1998-FR1629	19980723
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2766483	A1	19990129	FR 1997-9503	19970725
CN 1204646	A	19990113	CN 1998-103149	19980702
CA 2297803	A1	19990204	CA 1998-2297803	19980723
EP 998448	A1	20000510	EP 1998-940319	19980723
R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE, PT				
JP 2001510820	T	20010807	JP 2000-504091	19980723
PRIORITY APPLN. INFO.:			FR 1997-9503	A 19970725
			WO 1998-FR1629	W 19980723
OTHER SOURCE(S):		MARPAT 130:155251		
GI				



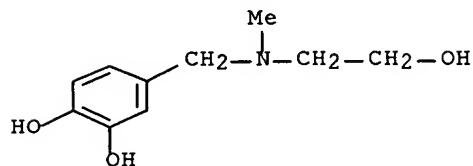
AB The amines have the formula I [Q = OH, NH₂; (each) R₁ = C₁-8 ((poly)hydroxy)alkyl; (each) R₂ = H, C₁-8 ((poly)hydroxy)alkyl; Y₁ and/or Y₂ = OH; Z = H, CH₂NR₁R₂]. I act as reducing agents and as chelating agents for Fe, and are useful on metal surfaces for prevention of corrosion and for improving subsequent paint adhesion. Thus, condensation of o-C₆H₄(OH)₂ with HCHO and N-methylglucamine gave a I as an isomer mixture, which was effective as is and was not separated. An aqueous solution containing adipic acid 0.5, H₃PO₄ 0.4, the I 1.0, soda 0.15 g/L and triethylenetetramine to pH 6.0 was applied to degreased and rinsed steel, dried, and coated with a com. paint to show excellent adhesion and corrosion resistance.

IT 220247-08-5P 220247-11-0P

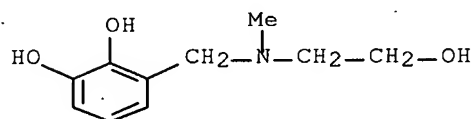
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of alkyl(hydroxybenzyl)amines as anticorrosion agents for metal

surfaces)
 RN 220247-08-5 CAPLUS
 CN 1,2-Benzenediol, 4-[[(2-hydroxyethyl)methylamino]methyl]- (CA INDEX NAME)

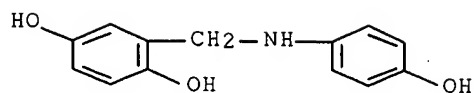


RN 220247-11-0 CAPLUS
 CN 1,2-Benzenediol, 3-[[(2-hydroxyethyl)methylamino]methyl]- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:119572 CAPLUS Full-text
 DOCUMENT NUMBER: 126:225127
 TITLE: Synthesis and biological activity of
 5-[(2,5-dihydroxybenzyl)amino]salicylic acid analogs
 as inhibitors of EGF receptor-associated protein
 tyrosine kinase
 AUTHOR(S): Liu, Tianming; Shirai, Ryuichi; Matsui, Takashi;
 Umezawa, Kazuo; Iwasaki, Shiego
 CORPORATE SOURCE: Inst. Mol. Cellular Biosciences, Univ. Tokyo, Tokyo,
 113, Japan
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1997), 7(3),
 365-368
 CODEN: BMCLE8; ISSN: 0960-894X
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB 2,5-HO[2,5-(HO)2C6H3CH2NH]C6H3R [R = H, NO2, SO3H, CONHR1, R1 = Me, (CH2)5Me,
 (CH2)13Me] were prepared as analogs of the lavendustin A active structure I [R
 = CO2H]. Analogs with an electron-withdrawing group in place of the carboxyl
 group showed activity. I [R = CONH(CH2)5Me] (IC50=0.9 μM) was about four
 times as potent I [R = CO2H].
 IT 154736-89-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)
 (preparation and protein tyrosine kinase-inhibiting activity of
 dihydroxybenzylaminophenol analogs of lavendustin A)
 RN 154736-89-7 CAPLUS
 CN 1,4-Benzenediol, 2-[[(4-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)

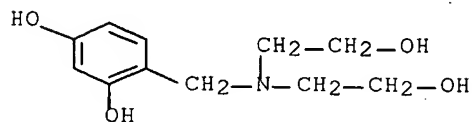


REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:259489 CAPLUS Full-text
 DOCUMENT NUMBER: 124:292303
 TITLE: Aminomethylated dihydroxybenzenes and hair-dyeing compositions containing them
 INVENTOR(S): Rose, David; Meinigke, Bernd; Hoeffkes, Horst
 PATENT ASSIGNEE(S): Henkel Kgaa, Germany
 SOURCE: Ger. Offen., 6 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4429344	A1	19960222	DE 1994-4429344	19940818
WO 9605800	A1	19960229	WO 1995-EP3156	19950809

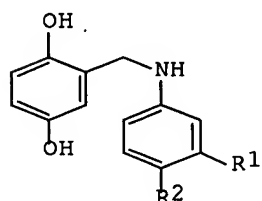
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
 PRIORITY APPLN. INFO.: DE 1994-4429344 A 19940818
 OTHER SOURCE(S): MARPAT 124:292303
 AB Oxidation-type hair dyes contain conventional developers and 4-(aminomethyl)resorcinol derivs. as couplers. 4-[[Bis(β-hydroxyethyl)amino]methyl]-2-methylresorcinol (I) is specifically claimed. I was prepared by reaction of 2-methylresorcinol with 3-(β-hydroxyethyl)oxazolidine. A hair-dyeing cream emulsion containing (per 100 g) 0.0075 mol each of p-aminophenol and I, along with surfactants and inhibitors, when activated by a 3% H2O2 solution, dyed human hair brown.
 IT 94564-79-1, 4-[[Bis(2-hydroxyethyl)amino]methyl]resorcinol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (aminomethylated dihydroxybenzenes and hair-dyeing compns. containing them)
 RN 94564-79-1 CAPLUS
 CN 1,3-Benzenediol, 4-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



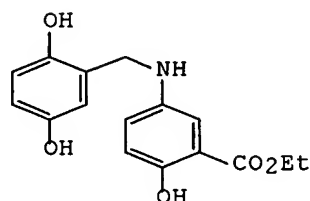
L13 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1994:298250 CAPLUS Full-text
 DOCUMENT NUMBER: 120:298250
 TITLE: Preparation of dihydroxybenzylamine derivatives as

drugs.
 INVENTOR(S): Boiziau, Janine; Chen, Huixiong; Garbay, Christiane;
 Le Pecq, Jean Bernard; Parker, Fabienne
 PATENT ASSIGNEE(S): Rhone-Poulenc Rorer S.A., Fr.; Institut National de la
 Sante et de la Recherche Medicale
 SOURCE: PCT Int. Appl., 62 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323364	A1	19931125	WO 1993-FR468	19930514
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2691145	A1	19931119	FR 1992-5980	19920518
AU 9340756	A	19931213	AU 1993-40756	19930514
EP 641311	A1	19950308	EP 1993-910121	19930514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 07506585	T	19950720	JP 1993-519944	19930514
ZA 9303426	A	19940802	ZA 1993-3426	19930517
PRIORITY APPLN. INFO.:			FR 1992-5980	A 19920518
			WO 1993-FR468	A 19930514
OTHER SOURCE(S):		MARPAT 120:298250		
GI				



I



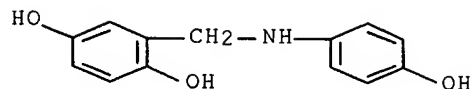
II

AB Title compds. [I; one of R1, R2 = H, halo, OH, alkoxy, alkylcarbonyloxy, arylcarbonyloxy, SH, alkylthio, amino, formylamino, alkylcarbonylamino, or arylcarbonylamino; the other = alkoxy, alkoxymethyl, acyl, arylcarbonyl, alkyloxycarbonyl, aryloxycarbonyl, alkenyloxycarbonyl, (N-substituted) carbamoyl or thiocarbamoyl], were prepared I have outstanding tumor prevention activity. Thus, Et 5-aminosalicylate hydrochloride, 2,5-dihydroxybenzaldehyde, and Et3N were stirred in MeOH at 60° for 15 h to give 65% imine, which was hydrogenated over Pd/C to give 62% title compound II. II inhibited tyrosine kinase in vivo at 0.4 μ M. An injectable formulation containing II is given.

IT 154736-89-7P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of, as drug)

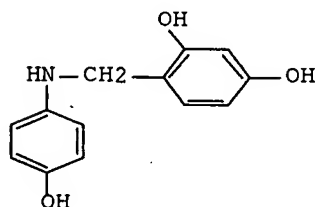
RN 154736-89-7 CAPLUS

CN 1,4-Benzenediol, 2-[[(4-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



L13 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:580509 CAPLUS Full-text
 DOCUMENT NUMBER: 119:180509
 TITLE: N-benzyl-4-aminophenols and their use as intermediates
 for developers for oxidative hair dyes
 INVENTOR(S): Konrad, Guenther; Knuebel, Georg; Hoeffkes, Horst;
 Lieske, Edgar
 PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany
 SOURCE: Ger. Offen., 7 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4200534	A1	19930715	DE 1992-4200534	19920111
PRIORITY APPLN. INFO.:			DE 1992-4200534	19920111
OTHER SOURCE(S):	MARPAT 119:180509			
GI				



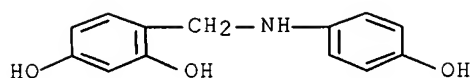
I

AB The title compds. are claimed as intermediates for oxidative hair dyes. Catalytic hydrogenation of N-(2,4-dihydroxybenzylidene)-4-aminophenol gave N-(2,4-dihydroxybenzyl)-4-aminophenol (I). An oxidative hair dye contained C12-18-fatty alcs., ethoxylated sodium C12-14-alkyl sulfate, water, I (developer component), and 1-naphthol (coupling component). This dye gave a red-brown color when applied to gray nontreated human hair.

IT 150268-63-6P, N-(2,4-Dihydroxybenzyl)-4-aminophenol
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as developer for hair dyes)

RN 150268-63-6 CAPLUS

CN 1,3-Benzenediol, 4-[[[4-hydroxyphenyl)amino]methyl]- (CA INDEX NAME)



L13 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1985:87713 CAPLUS Full-text
 DOCUMENT NUMBER: 102:87713
 TITLE: Diazotype compositions and materials
 INVENTOR(S): Muller, Peter; Mustacchi, Henry
 PATENT ASSIGNEE(S): Andrews Paper and Chemical Co., Inc., USA
 SOURCE: Eur. Pat. Appl., 38 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

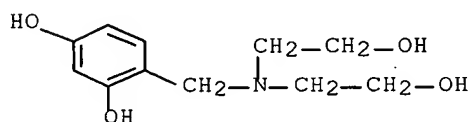
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 122523	A2	19841024	EP 1984-103434	19840328
EP 122523	A3	19870527		
R: CH, DE, GB, LI				
JP 60215059	A	19851028	JP 1984-76738	19840418
PRIORITY APPLN. INFO.:			US 1983-486061	A 19830418

AB A diazo imaging composition contains a diazonium compound and a coupling agent. The coupling agent comprises a reaction mixture obtained upon Mannich reaction of (1) a compound capable of coupling the diazonium compound (having an enolic moiety) and (2) HCOH with (3) a compound selected from an organic amine and NH₃. Thus, a paper support was coated with a layer containing noncolloidal silica (1 μ particle size) 50 g, vinyl acetate polymer 100, an antifoamant 1 mL, H₂O to 1 L, overcoated with a layer containing citric acid 150, Na naphthalenetrisulfonate 150, thiourea 350, di-Na 2,7-dihydroxynaphthalene-3,6-disulfonate 160, 2,4,3'-trihydroxybiphenyl 40 g, iso-PrOH 100, glycerin 300 mL, 1-diazo-4-dimethylaminebenzene chloride 1/2 Zn chloride 200, ZnCl₂ 300, Alizarine irisol 0.5 g, H₂O to 1 L, diethanolamine 170, 37% HCOH 130, AcOH (glacial) 65, and H₂O 40 mL. The paper was also given a back-coat to prevent curling. The paper was then aged at 50° and 75% relative humidity for 24 h, printed and developed to show blueish-black shades in full tones and grey in halftones.

IT 94564-79-1
 RL: USES (Uses)
 (diazo imaging composition with coupler from)

RN 94564-79-1 CAPLUS

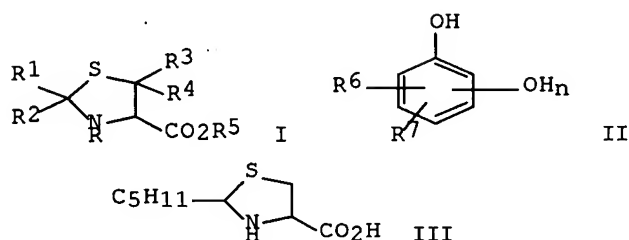
CN 1,3-Benzenediol, 4-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:144233 CAPLUS Full-text
 DOCUMENT NUMBER: 90:144233
 TITLE: Processing of silver halide photographic materials
 INVENTOR(S): Hanyu, Teiji; Sakamoto, Eiichi; Yamada, Koichi;
 Nakano, Masushi; Tsuda, Yasuo
 PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53110531	A	19780927	JP 1977-25063	19770308
JP 58056857	B	19831216		
PRIORITY APPLN. INFO.: GI			JP 1977-25063	A 19770308



AB Imagewise-exposed Ag halide photog. materials are developed at high temperature in a developer containing a dialdehyde hardening agent in the presence of a compound of the general structure I (R = H, alkyl, aralkyl, carboxyalkyl, sulfonylalkyl, acetyl, substituted carbamoyl; R1 = H, alkyl, aralkyl, aryl; R2 = H, a group which combines with R1 to form a cycloalkylene ring; R3, R4 = H, lower alkyl; R5 = H, cation). I may be added to the photog. materials or to the developer. The photog. materials used for the above process may also contain a phenol derivative of the general formula II [R6, R7 = H, alkoxy, halogen, CO2M, SO3M (M = H, cation), CO2R8 (R8 = alkyl), alkyl, aralkyl, aryl; n = 1,2]. The method improves the apparent sensitivity of the photog. materials. Thus, a high sensitivity x-ray film [Ag(Br,I) emulsion on both sides of the support] was sensitometrically exposed and developed in a developer containing 1-phenyl-3-pyrazolidone 0.4, Na2SO3 70, hydroquinone 10, Na2CO3.H2O 20, BO3 1, NaOH 5, 5-methylbenzotriazole 0.05, KBr 5, glutaraldehyde hydrogen sulfite 15, glacial AcOH 8, and III 0.5 g/L to give fog, relative sensitivity, γ , and Dmax of 0.12, 160, 3.4, and 3.80, resp., vs. 0.11, 100, 3.1, and 3.50, resp., for a III-free control.

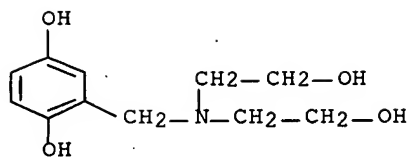
IT 5131-98-6

RL: USES (Uses)

(photog. emulsions containing thiazolecarboxylic acid derivs. and, for high temperature processing)

RN 5131-98-6 CAPLUS

CN 1,4-Benzenediol, 2-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:72532 CAPLUS Full-text

DOCUMENT NUMBER: 76:72532

ORIGINAL REFERENCE NO.: 76:11681a,11684a

TITLE: Photographically useful 3,4-dihydro-6-hydroxy-2H-1,3-benzoxazine derivatives

INVENTOR(S): Reynolds, Delbert Daniel; Cossar, Bernard C.

PATENT ASSIGNEE(S): Eastman Kodak Co.

SOURCE: Ger. Offen., 36 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2122767	A	19711202	DE 1971-2122767	19710507
US 3825538	A	19740723	US 1970-37907	19700515
CA 954132	A1	19740903	CA 1971-109572	19710405
GB 1351358	A	19740424	GB 1971-14690	19710513
FR 2091605	A5	19720114	FR 1971-17460	19710514
			US 1970-37907	A 19700515

PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

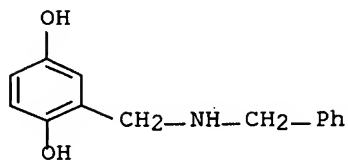
AB The benzoxazines I (R = H, C1-12 alkyl, PhCH₂; R1 = C1-6 alkyl, allyl, Ph, PhCH₂, PhCH₂CH₂) are prepared by treating the corresponding p-cresol with (HOCH₂)₂NR in the presence of an acid. I are precursors for Ag halide developers for use in diffusion transfer processes. They are hydrolyzed to the hydroquinones II in alkaline or acid medium. Thus, methylhydroquinone in MeCN containing HCl(g) was treated at -30° with (Me₂CHCH₂OCH₂)₂NMe to give 85% I (R = R1 = Me). Hydrolysis of I (R = R1 = Me) in concentrated HCl gave 74% II (R = R1 = Me).

IT 35246-54-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 35246-54-9 CAPLUS

CN 1,4-Benzenediol, 2-[[[(phenylmethyl)amino]methyl]-, hydrochloride (9CI)
(CA INDEX NAME)



● HCl

L13 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

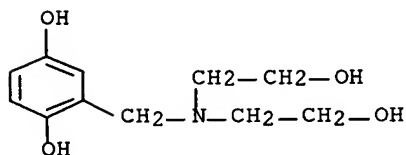
ACCESSION NUMBER: 1965:468403 CAPLUS Full-text
 DOCUMENT NUMBER: 63:68403
 ORIGINAL REFERENCE NO.: 63:12561b-d
 TITLE: Model experiments with poly(ethylene oxides)
 AUTHOR(S): Wood, H. W.
 CORPORATE SOURCE: Ilford Ltd., Ilford, UK
 SOURCE: Journal of Photographic Science (1965), 13(4), 177-84
 CODEN: JPTSAF; ISSN: 0022-3638
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB cf. CA 62, 12643e. A cell producing measurable currents is used as a model in studies on the inhibitory action of poly(ethylene oxides) (I) on the development by hydroquinone (II). The cell reaction is inhibited when I is in contact with the Ag anode, but not when in contact with the AgBr cathode. For simple I, a mol. weight .apprx.4000 is required to produce a marked effect, as with photographic emulsion tests. Cetomacrogol is highly active despite a mol. weight of only .apprx.1000. Albumin, carboxymethyl cellulose, deoxyribonucleic acid, dextran, poly(acrolein bisulfite), polyacrylamide, poly(ethylenimine), poly(methacrylic acid), poly(vinyl alc.), poly(vinylpyrrolidinone), and synthetic polypeptides P123 and P143 are relatively inactive in the cell. The following substituted derivs. of II were also tested: chloro, N,N-bis(β -hydroxyethyl)aminomethyl, N,N-diethylaminomethyl (III), 1-phenyl-5-tetrazolylthio, 4-nitrophenyl, 4-aminophenyl, 4-(1-phenyl-3-methyl-4-pyrazolonylazo)phenyl, and methoxy. All, except III, are resistant to inhibition, indicating that more active semiquinones are present. Microcalorim eter measurements demonstrate the adsorption of these compds. to Ag. It is suggested that I inhibits II development by interfering with the adsorption of semiquinone developing agent at latent image specks. No evidence of interaction of I and II in strongly alkaline solution was observed.

IT 5131-98-6, Ethanol, 2,2'-[(2,5-dihydroxybenzyl)imino]di-
 (photographic development by, poly(ethylene oxide) effect on)

RN 5131-98-6 CAPLUS

CN 1,4-Benzenediol, 2-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



L13 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:2877 CAPLUS Full-text
 DOCUMENT NUMBER: 60:2877
 ORIGINAL REFERENCE NO.: 60:439g-h,440a-b
 TITLE: Alkylaminomethylhydroquinones and related compounds
 AUTHOR(S): Weatherbee, Carl; Lau, Howard K. S.; Snell, Robert; Goken, Garold; Van Lear, George
 CORPORATE SOURCE: Millikin Univ., Decatur
 SOURCE: Transactions of the Illinois State Academy of Science (1963), 56(1), 12-18

CODEN: TISAAH; ISSN: 0019-2252

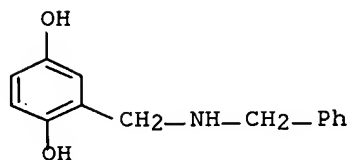
DOCUMENT TYPE:

Journal

LANGUAGE:

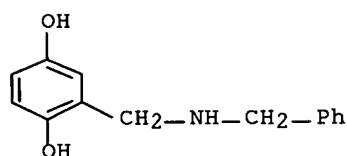
Unavailable

- AB cf. CA 56, 15504d. Condensation of PhCH₂NH₂ (I) and (PhCH₂)₂NH (II) with CH₂O (III) in the presence of p-benzyloxyphenol (IV) and hydroquinone (V) was studied. To 30.6 ml. 40% III in PrOH and 50 ml. dioxane was added with stirring during 3-4 min. at 10-15° 22 ml. I, followed by 40 g. IV and 25 ml. dioxane. After being stirred until homogeneous, refluxed 2 hrs., allowed to stand 22 hrs. at 25°, and evaporated, the mixture gave a solid which was dissolved in 300 ml. Et₂O and 150 ml. H₂O containing 11 g. NaOH. The Et₂O layer gave 57 g. crude 3,4-dihydro-3-benzyl-6-benzyloxy-2H-1,3-benzoxazine (VI), m. 86-7° (2:5 MeOH-EtOH). Similarly, 2-benzylaminomethyl-4-hydroxyphenol (VII) was converted in 91.5% yield to 3,4-dihydro-3-benzyl-6-hydroxy-2H-1,3-benzoxazine, m. 105-6° (CCl₄). A solution of 3.6 g. VI and 3 ml. concentrated HCl in 25 ml. EtOH was distilled until 15 ml. EtOH (and III) was removed, and the residue was cooled and treated with 20 ml. acetone to give 3.4 g. 2-benzylaminomethyl-4-benzyloxyphenolHCl (VIII), m. 170-1° (EtOH). A stirred mixture of 4.95 g. VIII and 1.5 ml. HOCH₂CH₂NH₂ in 150 ml. H₂O was extracted with Et₂O to give 4.16 g. 2-benzylaminomethyl-4-benzyloxyphenol (IX), m. 90-1° (MeOH). To a solution of 6.39 g. IX in 100 ml. MeOH was added to 0° 1.5 ml. 37% aqueous III, and the mixture refluxed 2 hrs. to give 5.3 g. VI. Refluxing 30 min. a mixture of 8.8 g. IX and 15 ml. concentrated HCl gave 5.1 g. 2-benzylaminomethylhydroquinoneHCl (X), m. 177-8° (iso-PrOH). IV was similarly cleaved to V. An aqueous solution of X was saturated with KHCO₃ and extracted with Et₂O to give VII, m. 120-20.5° (C₆H₆). Attempted condensations of II, III, and either IV or V under a variety of conditions led to 96100% tetrabenzylidiaminomethane (XI). XI did not react further with III and IV. Neither I nor I.HCl would react with III and V.
- IT 35246-54-9P, Hydroquinone, [(benzylamino)methyl]-, hydrochloride
92248-12-9P, Hydroquinone, [(benzylamino)methyl]-
RL: PREP (Preparation)
(preparation of)
- RN 35246-54-9 CAPLUS
- CN 1,4-Benzenediol, 2-[[[(phenylmethyl)amino]methyl]-, hydrochloride (9CI)
(CA INDEX NAME)



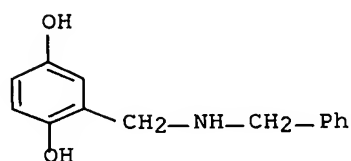
● HCl

- RN 92248-12-9 CAPLUS
- CN Hydroquinone, [(benzylamino)methyl]- (7CI) (CA INDEX NAME)



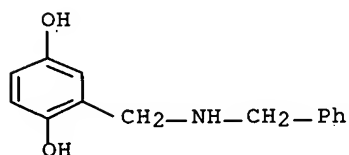
L13 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1963:66472 CAPLUS Full-text
 DOCUMENT NUMBER: 58:66472
 ORIGINAL REFERENCE NO.: 58:11350h,11351a-b
 TITLE: Mono-1,3-benzoxazines from hydroquinone
 AUTHOR(S): Burke, W. J.; Weatherbee, Carl; Lau, Howard; Van Lear, George; Goken, Garold
 CORPORATE SOURCE: Univ. of Utah, Salt Lake City
 SOURCE: Journal of Organic Chemistry (1963), 28, 1098-1100
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 GI For diagram(s), see printed CA Issue.
 AB Mono-1,3-benzoxazines (I) of hydroquinone were prepared by the reaction of 2-substituted aminomethylhydroquinones (II) with formaldehyde. An alternate synthesis involved the preparation of 3-substituted 6-benzyloxy-2H-1,3-benzoxazines. The oxazine ring was selectively cleaved to the corresponding Mannich base, which upon treatment with hot aqueous HCl gave II.
 IT 35246-54-9P, Hydroquinone, [(benzylamino)methyl]-, hydrochloride
 92248-12-9P, Hydroquinone, [(benzylamino)methyl]-
 RL: PREP (Preparation)
 (preparation of)
 RN 35246-54-9 CAPLUS
 CN 1,4-Benzenediol, 2-[[(phenylmethyl) amino]methyl]-, hydrochloride (9CI)
 (CA INDEX NAME)



● HCl

RN 92248-12-9 CAPLUS
 CN Hydroquinone, [(benzylamino)methyl]- (7CI) (CA INDEX NAME)

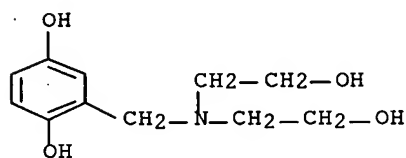


L13 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

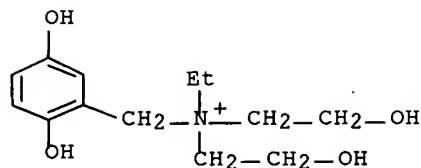
ACCESSION NUMBER: 1960:54673 CAPLUS Full-text
 DOCUMENT NUMBER: 54:54673
 ORIGINAL REFERENCE NO.: 54:10607a-e
 TITLE: Photographic development by hydroquinone compounds with positively charged groups

AUTHOR(S): Willems, J.
 CORPORATE SOURCE: Gevaert Photo-Producten N.V., Mortsel, Belg.
 SOURCE: Photographic Science and Engineering (1960), 4, 101-9
 CODEN: PSENAC; ISSN: 0031-8760
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

- AB Positively charged substituents on hydroquinone (I) considerably decrease the induction period of photographic development. This decrease is interpreted in terms of a diminished electrostatic repulsion because of diminished neg. charge of the Ag halide surface. Uncharged amino derivs. of I show larger induction periods than the quaternary ammonium derivs. but smaller than I itself. Chromatographic elution tests on AgBr dyed by a merocyanine dye at pH 5.2 indicate that the amino derivs. are more strongly adsorbed by AgBr than I and the quaternary ammonium derivs. are still more strongly adsorbed. The mono- and bis(alkylaminomethyl) derivs. were prepared from 1 mole I suspended in 250 cc. water below 10° under N atmospheric by addition of 1 or 2 moles of the appropriate amine, then 1 or 2 moles of HCHO. The dialkylaminomethyl-I was separated and crystallized. Prepared were 2-[bis(2-hydroxyethyl)aminomethyl]-I, m. 149-50°; 2,5-bis(dimethylamino-methyl)-I, m. 190°; 2,5-bis(diethylaminomethyl)-I, m. 107°; and 2,5-bis[bis(2-hydroxyethyl)aminomethyl]-I oxalate, m. 222°. 2-(Diethylaminomethyl)-I, m. 113°, (the HBr salt m. 130°) could not be prepared in this way but was prepared from the monomethyl ether of I. The mono-Mannich reaction product was demethylated afterwards. The mono- and bis-trialkylammoniummethyl derivs. were prepared by alkylating the corresponding amines with dialkyl sulfates in acetone, and purified by chromatography on Al₂O₃ and silica gel. Prepared were 2-(triethylammoniummethyl)-I ethyl sulfate, viscous oil; 2-[bis(2-hydroxyethyl)ethylammoniummethyl]-I ethyl sulfate, viscous oil; 2,5-bis(trimethylammoniummethyl)-I dimethyl sulfate, m. 216°; 2,5-bis[bis(2-hydroxyethyl)ethylammoniummethyl]-I diethyl sulfate, viscous oil. Prepared by a modified procedure were: 2,5-bis(4-sulfobenzyl-diethylammoniummethyl)-I dichloride; 2,5-bis(4-sulfobutyl-diethylammoniummethyl)-I. Polarographic half-wave potentials of all compds. in 0.001M solns. at pH 8 and 10 were determined at 25°. The potentials did not correlate with photographic activity.
- IT 5131-98-6, Ethanol, 2,2'-(2,5-dihydroxybenzylimino)di-109499-65-2, Ammonium, (2,5-dihydroxybenzyl)ethylbis(2-hydroxyethyl)-, ethyl sulfate
 (photographic development by)
- RN 5131-98-6 CAPLUS
- CN 1,4-Benzenediol, 2-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



- RN 109499-65-2 CAPLUS
- CN (2,5-Dihydroxybenzyl)ethylbis(2-hydroxyethyl)ammonium ethyl sulfate (6CI)
 (CA INDEX NAME)
- CM 1
- CRN 109499-64-1
- CMF C13 H22 N O4



CM 2

CRN 48028-76-8

CMF C2 H5 O4 S

Et-O-SO₃⁻

L13 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1958:10982 CAPLUS Full-text

DOCUMENT NUMBER: 52:10982

ORIGINAL REFERENCE NO.: 52:1944f-i,1945a

TITLE: New approach to tert-β-chloroalkylamines.

Synthesis of β-chloroalkylaminoethylhydroquinones

AUTHOR(S): Weatherbee, Carl; Temple, Richard; Burke, W. J.

CORPORATE SOURCE: Millikin Univ., Decatur, IL

SOURCE: Journal of Organic Chemistry (1956), 21, 1138-41

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

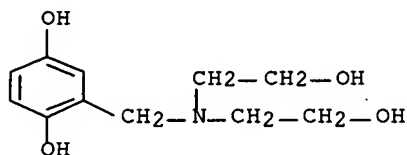
LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 52:10982

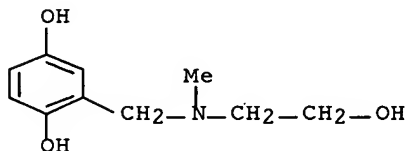
AB Sec-β-hydroxyalkylamines are condensed with HCHO and hydroquinone (I) to prepare tert-β-hydroxyalkylaminoethylhydroquinones which treated with SOCl₂ give tert-β-chloroalkylamines whose antimitotic activity is being studied. Thus, 0.40 mole HCHO (37% aqueous) in 50 ml. MeOH treated at 10° dropwise with 0.40 mole bis(β-hydroxyethyl)amine in 25 ml. MeOH and 0.40 mole I and kept in the dark 18 hrs. or refluxed 2 hrs. and the MeOH removed at 40-50° gives 60% 2-N,N-bis(β-hydroxyethyl)aminomethylhydroquinone (II), m. 149-50° (1:1 AcOEt-EtOH); picrate, m. 202-3° (EtOH); paraformaldehyde in MeOH containing a trace KOH can replace the HCHO. Addition of SOCl₂ to 0.04 mole II on an ice bath followed by refluxing at 35° with more SOCl₂ and distillation of excess SOCl₂ gives a salt; treatment of its aqueous solution with H₂NCH₂CH₂OH yields 2-N,N-bis(β-chloroethyl)aminomethylhydroquinone, m. 123-5° (CHCl₃-petr. ether). Similarly were prepared the following 2,5-(HO)2C₆H₃CH₂NRR' (R, R', m.p., recrystn. solvent, and % yield given): Me, CH₂CH₂OH, 134-5°, EtOH-EtOAc (III), 43; CH₂CHMeOH, CH₂CHMeOH, 171-2°, III, 60; C₆H₁₁, CH₂CHMeOH, - (hydrochloride, m. 137-9°), III, 31; Me, CH₂CH₂Cl, 158° (decomposition), MeOH-CHCl₃, 45; CH₂CHClMe, CH₂CHClMe, 183-4° (decomposition), MeOH-CCl₄, 43. The following 2,5-(HO)2C₆H₂(CH₂NRR')₂-1,4: CH₂CH₂OH, CH₂CH₂OH, 135-6°, III, 23; Me, CH₂CH₂OH, 111-12°, III, 28; Et, CH₂CH₂OH, 115-16°, III, 23 (picrate, m. 213-16°); CH₂CHMeOH, CH₂CHMeOH, 188-9°, III, 50 (picrate, m. 233-5°); C₆H₁₁, CH₂CHMeOH, 197-8°, III, 5; CH₂CH₂Cl, CH₂CH₂Cl, 164-4.5°, Et₂O-CHCl₃, 82 [HCl salt, m. 210-15° (decomposition)]; Me, CH₂CH₂Cl, 212-16° (decomposition),

CHCl₃-EtOH, 65; Et, CH₂CH₂Cl, 152-3° (decomposition), EtOH, 79; CH₂CHClMe, CH₂CHClMe, 191-2° (decomposition), III, 72. Also prepared was 2,5-bis(morpholinomethyl)hydroquinone by amine interchange from the bis(β-hydroxyethyl) compound in 95% yield, m. 205-6° (MeOH).

IT 5131-98-6P, Ethanol, 2,2'-(2,5-dihydroxybenzylimino)di-
100132-40-9P, Ethanol, 2-[(2,5-dihydroxybenzyl)methylamino]-
101589-28-0P, Ethanol, 2,2'-(2,5-dihydroxybenzylimino)di-, picrate
107411-88-1P, 2-Propanol, 1,1'-(2,5-dihydroxybenzylimino)di-
RL: PREP (Preparation)
(preparation of)
RN 5131-98-6 CAPLUS
CN 1,4-Benzenediol, 2-[[bis(2-hydroxyethyl)amino]methyl]- (9CI) (CA INDEX NAME)



RN 100132-40-9 CAPLUS
CN Ethanol, 2-[(2,5-dihydroxybenzyl)methylamino]- (6CI) (CA INDEX NAME)

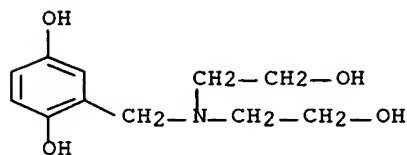


RN 101589-28-0 CAPLUS
CN Ethanol, 2,2'-(2,5-dihydroxybenzylimino)di-, picrate (6CI) (CA INDEX NAME)

CM 1

CRN 5131-98-6

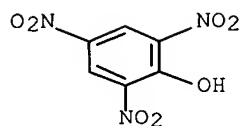
CMF C11 H17 N O4



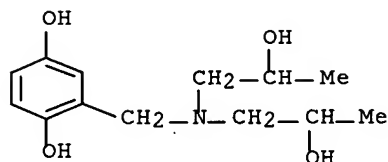
CM 2

CRN 88-89-1

CMF C6 H3 N3 O7



RN 107411-88-1 CAPLUS
 CN 2-Propanol, 1,1'-(2,5-dihydroxybenzylimino)di- (6CI) (CA INDEX NAME)

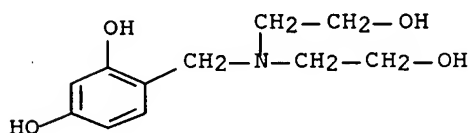


L13 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1955:75852 CAPLUS Full-text
 DOCUMENT NUMBER: 49:75852
 ORIGINAL REFERENCE NO.: 49:14359e-i,14360a-b
 TITLE: The synthesis of amphoteric tanning materials. II,III
 AUTHOR(S): Rosenbusch, K.
 CORPORATE SOURCE: Tech. Hochschule, Darmstadt, Germany
 SOURCE: Leder (1955), 6, 80-6
 CODEN: LEDEA8; ISSN: 0024-0176
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB Aliphatic amines, although more basic than aromatic amines, did not condense with monohydric phenols to amphotans in aqueous solution, but did in organic solvents. In MeOH, equimolar amts. of PhOH, dimethylamine, and HCHO condensed to an acid-soluble oil that was only partly soluble in alkali. The oil was separated to 2 fractions by Et₂O-alkali extraction. The main (alkali-insol.) fraction distilled without decomposition at 105-6° under 15 mm. pressure. It was identified as 2-hydroxy-N,N-dimethylbenzylamine by catalytic hydrogenation which gave a quant. yield of 1-methyl-2- cyclohexanol, which formed a 3,5-dinitrobenzoyl ester, m. 97°. It was not a tanning agent because the mol. was too small. Phenolnovolak condensed with dimethylamine in MeOH, to give an amphotan that was soluble in dilute acid and alkali and precipitated at the isoelec. point. The N content of 9% showed that one dimethylamine group had coupled with each phenolic group. The resin in acid form did not precipitate with gelatin until neutralized to the quaternary ammonium base stage. The cheaper ethanolamines also condensed with phenolnovolak; the mono compound giving a yellow alc.-insol. resin and the di-compound a resin soluble in alc., acid, or alkali. Catalytic hydrogenation of these resins produced p-cresol-novolak which was readily soluble in alc. or alkali but not in acid. The above condensations occur only in organic solvents, but polyhydric phenols form amphotans in aqueous solns. Diethanolamine condensed with HCHO to 3-(2-hydroxyethyl)oxazolidine, C₅H₁₁O₂N, which distilled without decomposition at 128°, 31 mm., decomposed at b.p. 224° and formed a picrate m. 108°. It condensed with resorcinol to N,N-bis(2-hydroxyethyl)-2,4-dihydroxybenzylamine (hydrochloride, colorless needles, m. 145° with decomposition) and with pyrogallol to N,N-bis(2-hydroxyethyl)-3,4,5-trihydroxybenzylamine, m. 145°. These crystalline Mannich bases showed the typical behavior of amphotans. If

the precipitate at the isoelec. point was filtered off, its N content approached that of a pure polyhydroxynovolak. Inorg. bases could also be used. NH_4Cl , resorcinol, and HCHO , condensed to a tannin that penetrated rapidly because of its small mol. Mannich condensation could also be obtained by fusion. With monohydric phenols the products were soluble, whereas if condensed in aqueous solution they were insol. Sym-xilenol, HCHO , and monoethanolamine condensed to the mono-, di-, or tri-benzylamine derivative, depending on the amount of amine used. Fusion of phenolnovolak, ethanolamine, and HCHO produced an amphotan similar to that made in alc. solution. Condensation by fusion can also be obtained with polyhydric phenols and amine salts instead of the free base, provided free acid is absent. The most important use for the Mannich condensation in the tanning chemistry lies in the possibility of changing vegetable tannins to amphotannins. A type reaction for a hydrolyzable and a condensed tannin are shown. Exptl. work was reported previously (C.A. 48, 13249e).

IT 364366-11-0P, Ethanol, 2,2'-(2,4-dihydroxybenzylimino)-di-, hydrochloride
 RL: PREP (Preparation)
 (preparation of)
 RN 364366-11-0 CAPLUS
 CN 1,3-Benzenediol, 4-[[bis(2-hydroxyethyl)amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L13: ANSWER 20 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1907:1663 CAPLUS Full-text

DOCUMENT NUMBER: 1:1663

ORIGINAL REFERENCE NO.: 1:416g-i,417a-i

TITLE: Resolution of N, N'-Diarylmethylenediamines

AUTHOR(S): Bischoff, C. A.; Frohlich, E.

CORPORATE SOURCE: Synthetic Lab., Polytechnicum, Riga

SOURCE: Berichte der Deutschen Chemischen Gesellschaft (1907), 39, 3964-81

CODEN: BDCGAS; ISSN: 0365-9496

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Some years ago the author found that the methylene bases, RNHCH_2NHR , unlike the corresponding ethylene derivatives, do not yield closed chain compounds with diphenyl oxalate (Ber., 35, 3440) but hydroxybenzylamine derivatives, $\text{HOC}_3\text{H}_4\text{CH}_2\text{NHR}$, and oxalylarylamides, RNHCOCONHR . In certain cases, however, especially with p-tolyl derivatives, the secondary base is converted into an equimolecular mixture of primary, H_2NR , and tertiary base, RN NR , which latter, with phenols, yield the above hydroxybenzylamine compounds. Phenol and the secondary methylene bases give phenol salts of primary bases, PhONH_2R and a mixture of the components. The methylene usually enters the phenol ring in the ortho position, but in the case of orthomethoxybenzene and paraethoxybenzene the methylene enters at the para position. In the above

cases R = C₆H₆, o-C₄H₄CH₆, o-C₄H₄CH₃, o-C₄H₄OCH₃, p-C₃H₄OCH₃, p-C₆H₄OCH₂H₅. N,N'-Diphenylmethylenediamine, PhNH.CH₂NHPh. This base gives, with phenol, a hydroxybenzylaniline, microscopic prisms, m. 156° and also the ortho isomeride, m. 113°. which is likewise formed from phenol and "anhydroformaldehyde aniline." Resorcinol yields a 1,3-dihydroxybenzylaniline, (HO)2C₄H₃CH₂NHPh, crystalline powder consisting of small rods. It could not be benzoylated. Diphenyl oxalate gives oxanilide and o-hydroxybenzylaniline. Sodium phenolate resolves the base into aniline. The base does not react with acetone, alcoholic potassium hydroxide, ethyl acetate, or benzaldehyde. Ethyl oxalate, ethyl malonate and ethyl succinate, on the other hand, yield the anilides of the respective acids and a mixture of tertiary "anhydro" bases. N,N'-Diorthotolylmethylenediamine. Prepared from o-toluidine hydrochloride and formaldehyde by an improved method. Yield, 50%. Aniline, under the same conditions, gives only mixtures of "anhydroformaniline." With phenol the above base gives, in very small quantity, what is probably o-hydroxybenzyl-o-toluidine; transparent plates, m. 40°-50°. Diphenyl oxalate yields oxal-o-anilide, m. 210°. N,N'-Diparatolylmethylenediamine. With phenol o-hydroxybenzyl-p-toluidine is formed. Resorcinol yields m-dihydroxybenzyl-p-toluidine, (HO)2C₆H₃CH₂NHC₃H₄Me, microscopic rods or plates, m. 165°. Diphenyl oxalate gives oxal-p-toluide and "anhydroformtoluidine," a mixture of tertiary bases, m. 127°-128° and 212°-223°, respectively. (vide Ber., 31, 3253). N,N'-Diorthoanisylmethylenediamine. The base b20 160°; distillation with phenol does not cause a reaction. At 180°-200° a hydroxybenzyl-o-onisidine, is formed, microscopic rods, m. 125°. It is probably the p-compound. The ortho isomer was also obtained by boiling the reacting substances in benzene. With diphenyl oxalate, oxalo-o-anisidide is formed, hexagonal plates, m. 246°. It was prepared for comparison from diphenyl oxalate and o-anisidine. p-Nitrophenol, pyrocatechol, resorcinol and hydroquinol could not be induced to act on this diamine and all attempts to prepare an "anhydro base" were fruitless. N,N'-Diparaanisylmethylenediamine. Phenol and p-anisidine combine, in ligroin solution, forming the phenolate, C₁₈H₁₆O₂N, colorless prisms, m. 60°. With the methylene base phenol yields o-hydroxybenzylanisidine. Diphenyl oxalate forms oxanisidide and resorcinol gives 1,3-dihydroxy-p-anisidine, (HO)2C₆H₂CH₂NHC₃H₄OMe, colorless thin plates, m. 149°; at 140° it becomes red. N,N'-Diparaphenetylmethylenediamine, b12 174°; boiling in air resolves it into its constituents. No formation of tertiary base could be observed. Phenol and phenetidine yield the phenolate, long, lustrous needles, m. 52°. Phenol and the methylene base give a mixture of products, but in benzene solution a hydroxybenzyl-p-phenetidine is formed; small prisms, m. 106°. It becomes yellow in air and is probably the para compound. Diphenyl oxalate yields only oxalphenetidide. With resorcinol 1,3-dihydroxybenzylphenetidine, (HO)2C₆H₃CH₂NHC₄H₄OEt, is formed; irregular, thin plates, m. 156°. In addition to the above methylene bases the action of a number of others on diphenyl oxalate has been studied. Methylaniline gives a mixture of dimethyloxanilide, PhNMeCOCO2Ph, colorless crystals, m. 86° and phenyl methyloxanilate, PhNMeCOCO2Ph, oii, b10 about 270°. The "methyloxanilide" of Norton and Livermore (Ber., 20, 2273), b. 249°-251°, cannot be a derivative of oxalic acid, but may, perhaps, be methylformanilide. Phenylhydrazine and diphenyl oxalate give oxalyldiphenylhydrazide, which has been previously prepared by E. Fischer from diethyl oxalate. Phenyl phenyloxanilate, Ph₂NCOCO2Ph, from diphenyl oxalate and diphenylamine; prisms, m. 127°-128°. Phenyl benzyloxanilate, PhCH₂NPhCOCO2Ph, from diphenyl oxalate and benzylianiline; colorless prisms, m. 93°-94°. Carbazole and diphenyl oxalate could not be induced to interact.

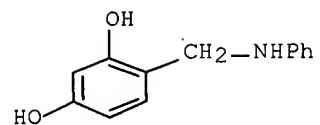
IT 364366-14-3P, Resorcinol, 4-(anilinomethyl)-

RL: PREP (Preparation)

(preparation of)

RN 364366-14-3 CAPLUS

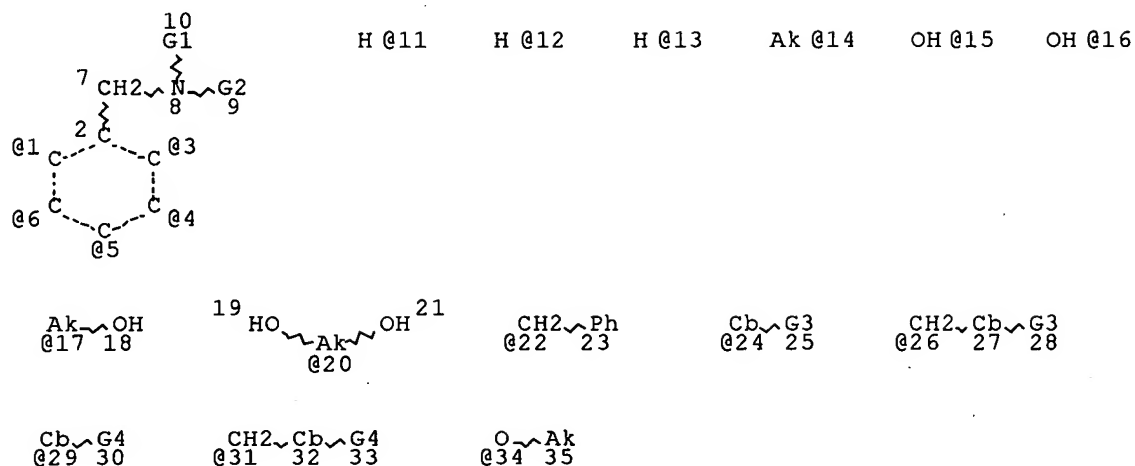
CN 1,3-Benzenediol, 4-[(phenylamino)methyl]- (CA INDEX NAME)



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SEARCH HISTORY

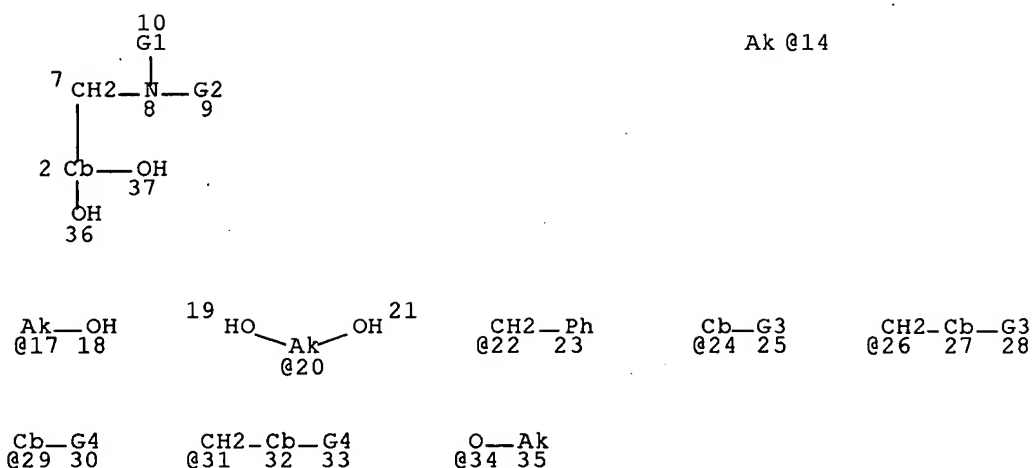
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STEREO ATTRIBUTES: NONE
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L9 STR



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NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 14 17 20 23 24 27 29 32 35

GGCAT IS MCY LOC UNS AT 2

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53 ANSWERS

SEARCH TIME: 00.00.01

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